

REMARKS

In response to a Notice of Non-Compliant Amendment mailed September 4, 2009, applicants request that the present submission replace the Amendment and Response to Restriction Requirement originally submitted on April 22, 2009. The present submission corrects the typographical error contained in the April 22, 2009 submission, replacing the word "bacteriuman" in claim 1 with "bacterium". This substitute response to the Restriction Requirement is believed to be free of defects and responsive to the Notice of Non-Compliant Amendment mailed September 4, 2009 and the original Restriction Requirement mailed March 25, 2009.

Claim 1 has been amended to incorporate the limitations of original claim 6, and claims 5 and 6 have been amended to further designate various bacterial strains that can be modified in accordance with one embodiment of the invention. Support for the amendment to claims 1, 5 and 6 is found throughout the specification including for example on page 2, lines 18-24 and page 7, lines 16-29. Claims 18-21 have been added and claim 9 canceled. Claims 18-21 are directed to further embodiments of the present invention and support for those new claims is found throughout the specification including for example on page 7, line 30 through page 8, line 24.

The above-captioned application was restricted to one of two groups of claims. Applicants hereby elect the Group I claims, claims 1-10, directed to a bacterium having greater than 75% reduced hydrogenase activity relative to wild type, without traverse. Non-elected claims 11-17 have been withdrawn. Applicants are also requested to elect a single disclosed species for prosecution. Applicants hereby elect the bacterium species *Salmonella typhimurium* and the claims currently being prosecuted that encompass this species include claims 1-8, 10 and newly added claims 18-21.

The pending claims are directed to novel bacteria that have been modified to have substantially reduced hydrogenase activity. Applicants have discovered that the virulence of such modified bacteria is reduced and thus allows the use of such modified bacteria to prevent or treat enteric bacterial pathogenic infections. Applicants are the first to report a reduced virulence associated with the elimination of hydrogenase activity in pathogenic bacteria.

Applicants respectfully request allowance of the claims, and passage of the application to issuance. If any further discussion of this matter would speed prosecution of this application, the Examiner is invited to call the undersigned at (434) 220-2866.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'John P. Breen', with a long horizontal flourish extending to the right.

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